

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1.-59. (Cancelled)

60. (Previously Presented) A dendritic polymer of generation n composed of:

- a central core § of valence m;
- optionally, generation chains branching around the core;
- an intermediate chain at the end of each bond around the core or at the end of each generation chain, where appropriate; and
- a terminal group at the end of each intermediate chain,

wherein m represents an integer from 3 to 8; n represents an integer from 0 to 12, the intermediate chains, which are identical or different, are represented by formula



wherein

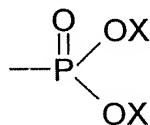
J represents an oxygen atom, a sulfur atom or a radical -NR-;

K represents an aryl, heteroaryl or alkyl radical, each of which is optionally substituted by a halogen atom or by -NO₂, -NRR', -CN, -CF₃, -OH, an -alkyl radical, an -aryl radical, or an -aralkyl radical;

L represents a hydrocarbon chain having from 1 to 6 chain members and optionally having one or more heteroatoms and/or optionally having one or more double or triple bonds, each of said chain members being optionally substituted by one or more substituents selected from -OH, -NRR', and -Oalkyl; and R and R', which are identical or different, each independently of the other represents a hydrogen atom or an -alkyl, -aryl, or -aralkyl radical; and

L'' represents an -alkyl- chain having from 1 to 6 chain members, optionally substituted by one or more substituents selected from -OH, -NRR', and -Oalkyl,

where R and R', which may be identical or different, each independently represent a hydrogen atom, an alkyl radical, an aryl radical or an -aralkyl radical;
and further wherein the terminal group is composed of the group of formula:



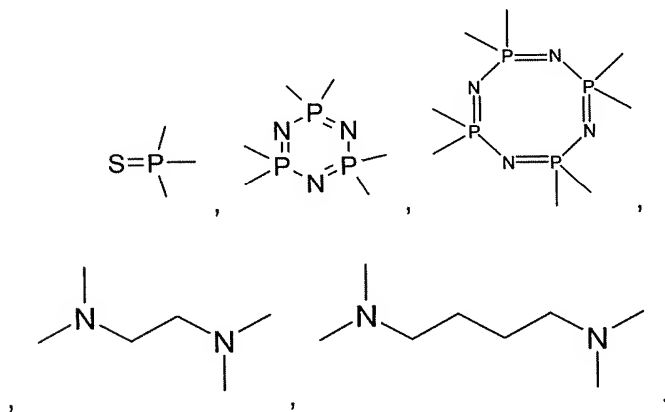
wherein each of the radicals X, which are identical or different, represents a radical
-Me, -H and/or -M⁺, wherein M⁺ is a cation,

with the exception of the compound of formula:

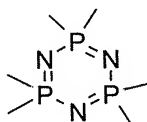


61. (Previously Presented) A dendritic polymer according to claim 60, wherein the central core contains at least one phosphorus atom.

62. (Previously Presented) A dendritic polymer according to claim 60, wherein the central core is selected from the following groups:



63. (Previously Presented) A dendritic polymer according to claim 60, wherein the central core has the formula:



64. (Previously Presented) A dendritic polymer according to claim 60, having a DAB-AM, PAMAM, or PMMH structure.

65. (Currently Amended) A dendritic polymer according to claim 60 comprising:

- (a) a central core § of valence m;
- (b) optionally, generation chains branching around the core;
- (c) an intermediate chain at the end of each bond around the core or at the end of each generation chain, where appropriate; and
- (d) a terminal group at the end of each intermediate chain,

wherein m represents an integer from 3 to 8; n represents an integer from 0 to 12, the intermediate chains, which are identical or different, are represented by formula



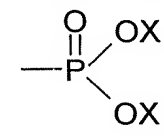
wherein

J represents an oxygen atom, a sulfur atom or a radical —NR—;

K represents an aryl, heteroaryl or alkyl radical, each of which is optionally substituted by a halogen atom or by —NO₂, —NRR', —CN, —CF₃, —OH, an —alkyl radical, an —aryl radical, or an —aralkyl radical;

L represents a hydrocarbon chain having from 1 to 6 chain members and optionally having one or more heteroatoms and/or optionally having one or more double or triple bonds, each of said chain members being optionally substituted by one or more substituents selected from —OH, —NRR', and —Oalkyl; and R and R', which are identical or different, each independently of the other represents a hydrogen atom or an —alkyl, —aryl, or —aralkyl radical; and

L'' represents an —alkyl- chain having from 1 to 6 chain members, optionally substituted by one or more substituents selected from —OH, —NRR', and —Oalkyl, where R and R', which may be identical or different, each independently represent a hydrogen atom, an alkyl radical, an aryl radical or an —aralkyl radical; and further wherein the terminal group is composed of the group of formula:



wherein each of the radicals X, which are identical or different, represents a radical -Me, -H and/or -M⁺, wherein M⁺ represents the cation of an element of group IA, IIA, IIB or IIIA of the periodic table or M⁺ represents HNEt₃⁺

with the exception of the compound of formula:



66. (Currently Amended) A dendritic polymer according to claim 60 65, wherein M is selected from sodium and potassium atoms.

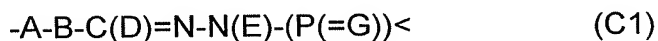
67. (Previously Presented) A dendritic polymer according to claim 60, wherein n is from 0 to 3.

68. (Previously Presented) A dendritic polymer according to claim 60, wherein m is selected from 3, 4 and 6.

69. (Previously Presented) A dendritic polymer according to claim 60, wherein the generation chains are selected from linear and branched hydrocarbon chains having from 1 to 12 chain members and optionally having one or more double or triple bonds, each of said chain members optionally being selected from a heteroatom, an Aryl radical, a Heteroaryl radical, >C=O, and >C=NR, each chain member being optionally substituted by one or more substituents selected from -Alkyl, -Hal, -NO₂, -NRR', -CN, -CF₃, -OH, -OAlkyl, -Aryl, and -Aralkyl, wherein

R and R', which are identical or different, each independently of the other represents a hydrogen atom, an alkyl radical, an aryl radical or an -aralkyl radical.

70. (Previously Presented) A dendritic polymer according to claim 60, wherein the generation chains, which are identical or different, are represented by the formula:



wherein:

A represents an oxygen, sulfur or phosphorus atom or a radical -NR-;

B represents a radical -Aryl-, -Heteroaryl-, or -Alkyl-, each of which is optionally substituted by a Halogen atom or by a radical -NO₂, -NRR', -CN, -CF₃, -OH, -Alkyl, -Aryl, or -Aralkyl;

C represents a carbon atom,

D and E, which are identical or different, each independently of the other represents a hydrogen atom, a radical -Alkyl, -OAlkyl, -Aryl, or -Aralkyl, each of which is optionally substituted by a Halogen atom or by a radical -NO₂, -NRR', -CN, -CF₃, -OH, -Alkyl, -Aryl, or -Aralkyl;

G represents a sulfur, oxygen, selenium or tellurium atom or a radical =NR;

R and R', which are identical or different, each independently of the other represents a hydrogen atom or a radical -Alkyl, -Aryl, or -Aralkyl; and

< represents the two bonds at the end of each generation chain.

71. (Previously Presented) A dendritic polymer according to claim 70, wherein A represents an oxygen atom.

72. (Previously Presented) A dendritic polymer according to claim 70, wherein B represents a phenyl ring optionally substituted by a halogen atom or by a radical NO₂, -NRR', -CN, -CF₃, -OH, -Alkyl, -Aryl, or -Aralkyl.

73. (Previously Presented) A dendritic polymer according to claim 70, wherein B represents an unsubstituted phenyl ring.

74. (Previously Presented) A dendritic polymer according to claim 70, wherein D represents a hydrogen atom.

75. (Previously Presented) A dendritic polymer according to claim 70, wherein E represents an alkyl radical.

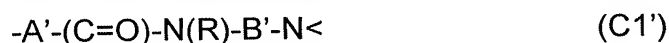
76. (Previously Presented) A dendritic polymer according to claim 70, wherein G represents a sulfur atom.

77. (Currently Amended) A dendritic polymer according to claim 60 of generation n comprising:

- (a) a central core S of valence m ;
- (b) generation chains branching around the core;
- (c) an intermediate chain at the end of each bond around the core or at the end of each generation chain, where appropriate; and
- (d) a terminal group at the end of each intermediate chain,

wherein m represents an integer from 3 to 8; n represents an integer from 0 to 12,

the generation chains are represented by the formula:



wherein

A' and B' , each independently of the other, represents represent an alkyl radical, an alkenyl radical or an alkynyl radical, each of which is optionally substituted by one or more substituents selected from $[-Alkyl]$ -alkyl, $[-Hal]$ halogen atoms, $-NO_2$, $-NRR'$, $-CN$, $-CF_3$, $-OH$, $-OAlkyl$, $[-Aryl]$ -aryl, and $[-Aralkyl]$ -aralkyl; and

R and R' , which may be identical or different, each independently represent a hydrogen atom, an alkyl radical, an aryl radical or an aralkyl radical the intermediate chains, which are identical or different, are represented by formula



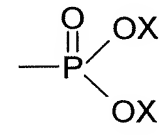
wherein

J represents an oxygen atom, a sulfur atom or a radical $-NR-$;

K represents an aryl, heteroaryl or alkyl radical, each of which is optionally substituted by a halogen atom or by $-NO_2$, $-NRR'$, $-CN$, $-CF_3$, $-OH$, an $-alkyl$ radical, an $-aryl$ radical, or an $-aralkyl$ radical;

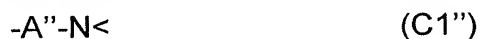
L represents a hydrocarbon chain having from 1 to 6 chain members and optionally having one or more heteroatoms and/or optionally having one or more double or triple bonds, each of said chain members being optionally substituted by one or more substituents selected from $-OH$, $-NRR'$, and $-Oalkyl$; and R and R' , which are identical or different, each independently of the other represents a hydrogen atom or an $-alkyl$, $-aryl$, or $-aralkyl$ radical; and

L'' represents an -alkyl- chain having from 1 to 6 chain members, optionally substituted by one or more substituents selected from -OH, -NRR', and -Oalkyl, where R and R', which may be identical or different, each independently represent a hydrogen atom, an alkyl radical, an aryl radical or an -aralkyl radical; and further wherein the terminal group is composed of the group of formula:



wherein each of the radicals X, which are identical or different, represents a radical -Me, -H and/or -M⁺, wherein M⁺ is a cation.

78. (Currently Amended) A dendritic polymer according to claim 60, wherein the generation chains are represented by the formula:



wherein

A'' represents [[a]] an alkyl radical, an alkenyl radical or a alkynyl radical, each of which is optionally substituted by one or more substituents selected from -Alkyl, -Hal, -NO₂, -NRR', -CN, -CF₃, -OH, -OAlkyl, -Aryl, and -Aralkyl; and wherein R and R', which are identical or different, each independently of the other represents a hydrogen atom or an -alkyl radical, an -aryl radical, or an -aralkyl radical.

79. (Previously Presented) A dendritic polymer according to claim 60, wherein the generation chains are identical.

80. (Cancelled)

81. (Previously Presented) A dendritic polymer according to claim 70, wherein J represents an oxygen, sulfur or phosphorus atom or a radical -NR- and K represents an -aryl-, -heteroaryl-, or -alkyl- radical, each of which is optionally substituted by a Halogen atom or by a -NO₂, -NRR', -CN, -CF₃, -OH, -alkyl, -aryl, or -aralkyl radical.

82. (Currently Amended) A dendritic polymer according to claim 80 60, wherein J represents an oxygen atom.

83. (Currently Amended) A dendritic polymer according to claim 80 60, wherein K represents a phenyl ring optionally substituted by a Halogen halogen atom or by an -NO₂, -NRR', -CN, -CF₃, -OH, an -alkyl radical, an -aryl radical, or an -aralkyl radical; where R and R', which may be identical or different, each independently represent a hydrogen atom, an alkyl radical, an aryl radical or an [[araalkyl]] aralkyl radical.[[.]]

84. (Currently Amended) A dendritic polymer according to claim 80 60, wherein K represents an unsubstituted phenyl ring.

85. (Currently Amended) A dendritic polymer according to claim 80, comprising:

(a) a central core § of valence m;

(b) optionally, generation chains branching around the core;

(c) an intermediate chain at the end of each bond around the core or at the end of each generation chain, where appropriate; and

(d) a terminal group at the end of each intermediate chain.

wherein m represents an integer from 3 to 8; n represents an integer from 0 to 12, the intermediate chains, which are identical or different, are represented by formula



wherein

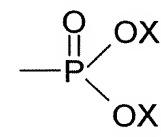
J represents an oxygen atom, a sulfur atom or a radical -NR-;

K represents an aryl, heteroaryl or alkyl radical, each of which is optionally substituted by a halogen atom or by -NO₂, -NRR', -CN, -CF₃, -OH, an -alkyl radical, an -aryl radical, or an -aralkyl radical;

wherein L represents [[a]] an -alkyl-, -alkenyl- or -alkynyl- radical [[-Alkyl-, -Alkenyl- or -Alkynyl-]], each of which is optionally substituted by one or more substituents selected from -OH, -NRR', and [[(-OAlkyl)] -Oalkyl]

and

L' represents an -alkyl- chain having from 1 to 6 chain members, optionally substituted by one or more substituents selected from -OH, -NRR', and -Oalkyl, where R and R', which may be identical or different, each independently represent a hydrogen atom, an alkyl radical, an aryl radical or an -aralkyl radical; and further wherein the terminal group is composed of the group of formula:



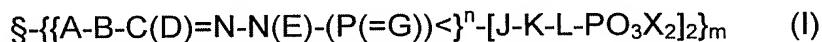
wherein each of the radicals X, which are identical or different, represents a radical -Me, -H and/or -M⁺, wherein M⁺ represents a cation.

86. (Currently Amended) A dendritic polymer according to claim 80 85, wherein L represents an alkenyl radical or an alkyl radical, optionally substituted by a radical -OH.

87. (Currently Amended) A dendritic polymer according to claim 80 86, wherein L represents an alkyl radical optionally substituted by -OH.

88. (Cancelled)

89. (Currently Amended) A dendritic polymer according to claim 60, which is represented by the formula (I):



in which:

§ represent a central core of valence m,

A represents an oxygen, sulfur or phosphorus atom or a radical -NR-,

B represents [[a]] an -aryl-, -heteroaryl-, or -alkyl- radical [-Aryl-, -Heteroaryl-, or -Alkyl-], each of which is optionally substituted by a Halogen atom or by a radical -NO₂, -NRR', -CN, -CF₃, -OH, -Alkyl, -Aryl, or -Aralkyl,

C represents a carbon atom,

D and E, which are identical or different, each independently of the other represents a hydrogen atom, [[a]] an -alkyl-, -Oalkyl-, -aryl or -aralkyl radical -Alkyl-, -OAlkyl-,

~~Aryl, or Aralkyl~~, each of which is optionally substituted by a ~~Halogen~~ halogen atom or by a ~~[[radical]]~~ -NO₂, -NRR', -CN, -CF₃, -OH, -Alkyl, ~~Aryl, or Aralkyl~~ -alkyl, -aryl, or -aralkyl radical;

G represents a sulfur, oxygen, selenium or tellurium atom or a radical =NR,

J represents an oxygen atom, a sulfur atom or a radical -NR-,

K represents an -aryl- radical, a -heteroaryl- radical, or an -alkyl- radical, each of which is optionally substituted by a halogen atom or by -NO₂, -NRR', -CN, -CF₃, -OH, an -alkyl radical, an -aryl radical, or an -aralkyl radical,

L represents a hydrocarbon chain having from 1 to 6 chain members and optionally having one or more heteroatoms and/or optionally having one or more double or triple bonds, each of said chain members being optionally substituted by one or more substituents selected from -OH, -NRR', and -Oalkyl,

N represents a nitrogen atom,

P represents a phosphorus atom,

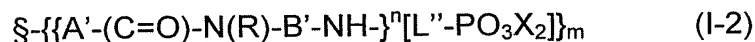
X, which are identical or different, represents a radical -Me, -H and/or -M⁺, wherein M⁺ is a cation,

m represents an integer from 3 to 8,

n represents an integer from 0 to 12, and

< represents the two bonds at the end of each generation chain.

90. (Currently Amended) A dendritic polymer ~~according to claim 60, which is~~ represented by the following formula (I-2):



in which:

\S represent a central core of valence m,

-{A'-(C=O)-N(R)-B'-NH-}ⁿ represents generation chains branching around the core,

L'' represents intermediate chains, and

-PO₃X₂ represents a terminal group at the end of each intermediate chain, wherein

A' and B', each independently of the other, ~~represents~~ represent an alkyl radical, an alkenyl radical or an alkynyl radical, wherein said radicals may have one

or more substituents selected from the group consisting of -alkyl radicals, [[-Hal]] halogen atoms, -NO₂, -NRR', -CN, -CF₃, -OH, -Oalkyl radicals, -aryl radicals, and -aralkyl radicals;

L'' represents an -alkyl- chain having from 1 to 6 chain members, optionally substituted by one or more substituents selected from -OH, -NRR', and -Oalkyl;

N represents a nitrogen atom;

P represents a phosphorus atom;

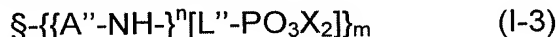
R and R', which may be identical or different, each independently represent a hydrogen atom, an alkyl radical, an aryl radical or an aralkyl radical.

X, which are identical or different, represents a radical -Me, -H and/or -M⁺, wherein M⁺ is a cation,

m represents an integer from 3 to 8, and

n represents an integer from 0 to 12.

91. (Currently Amended) A dendritic polymer ~~according to claim 60 which is~~ represented by the following formula (I-3):



in which:

§ represent a central core of valence m,

{A''-NH-} represents generation chains branching around the core,

L'' represents intermediate chains, and

-PO₃X₂ represents a terminal group at the end of each intermediate chain,

wherein

A'' represents an alkyl radical, an alkenyl radical [[ro]] or an alkynyl radical, optionally substituted with one or more substituents selected from the group consisting of -alkyl, [[-Hal]] halogen atoms, -NO₂, -NRR', -CN, -CF₃, -OH, -OAlkyl, -Aryl, and -Aralkyl;

L'' represents an -alkyl- chain having from 1 to 6 chain members, optionally substituted by one or more substituents selected from -OH, -NRR', and -Oalkyl;

N represents a nitrogen atom;

P represents a phosphorus atom;

R represents and R', which may be identical or different, each independently represent a hydrogen atom, an -alkyl radical, an -aryl radical, or an -aralkyl radical;

[[R']]

X, which are identical or different, represents a radical –Me, -H and/or –M⁺, wherein M⁺ is a cation,

m represents an integer from 3 to 8, and

n represents an integer from 0 to 12.

92-118. (Withdrawn)